

CLAIMS

1. A data processor comprising:

a writing section for arranging a plurality of moving picture streams, each including video and audio to play back
5 synchronously with each other, and writing the streams as at least one data file on a storage medium; and

a writing control section for locating a mute interval between two moving picture streams that are going to be played back continuously,

10 wherein the writing control section provides additional audio data representing audio to be reproduced in the mute interval located, and

wherein the writing section stores the provided additional audio data on the storage medium such that the
15 additional audio data is associated with the data file.

2. The data processor of claim 1, wherein the writing control section further uses audio data, which is stored in a predetermined terminal range of one of the two continuously
20 played moving picture streams that is going to be played

earlier than the other, and provides the additional audio data including the same audio as that stored in the predetermined terminal range.

5 3. The data processor of claim 1, wherein the writing control section further uses audio data, which is stored in a predetermined terminal range of one of the two continuously played moving picture streams that is going to be played later than the other, and provides the additional audio data
10 including the same audio as that stored in the predetermined terminal range.

 4. The data processor of claim 1, wherein the writing section writes the provided additional audio data just before
15 where the mute interval is stored, thereby associating the additional audio data with the data file.

 5. The data processor of claim 1, wherein the writing section writes the arranged moving picture streams as a single
20 data file on the storage medium.

6. The data processor of claim 1, wherein the writing section writes the arranged moving picture streams as multiple data files on the storage medium.

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7. The data processor of claim 6, wherein the writing section writes the provided additional audio data just before where one of the two continuously played moving picture stream data files, which is going to be played later than the other, is stored, thereby associating the additional audio data with the data file.

8. The data processor of claim 1, wherein the writing section writes information about the arrangement of the moving picture streams as at least one data file on the storage medium.

9. The data processor of claim 1, wherein the mute interval is shorter than the time length of a single audio decoding unit.

10. The data processor of claim 1, wherein a video stream in each said moving picture stream is an MPEG-2 video stream, and wherein the same MPEG-2 video stream buffer
5 conditions are to be satisfied by the two continuously played moving picture streams.

11. The data processor of claim 1, wherein the writing section further writes information for controlling an audio
10 level before and after the mute interval on the storage medium.

12. The data processor of claim 1, wherein the writing section writes the moving picture streams in a physically
15 continuous data area on the storage medium on the basis of either a predetermined playback duration or a predetermined data size, and also writes the additional audio data just before the continuous data area.

20 13. A data processing method comprising the steps of:

writing an arrangement of a plurality of moving picture streams, each including video and audio to play back synchronously with each other, as at least one data file on a storage medium; and

5 controlling writing by locating a mute interval between two moving picture streams that are going to be played back continuously,

 wherein the step of controlling writing includes providing additional audio data representing audio to be
10 reproduced in the mute interval located, and wherein the step of writing includes associating the provided additional audio data with the data file and storing the additional audio data on the storage medium.

15 14. The data processing method of claim 13, wherein the step of controlling writing includes further using audio data, which is stored in a predetermined terminal range of one of the two continuously played moving picture streams that is going to be played earlier than the other, and providing the
20 additional audio data including the same audio as that stored

in the predetermined terminal range.

15. The data processing method of claim 13, wherein the
step of controlling writing includes further using audio data,
5 which is stored in a predetermined terminal range of one of
the two continuously played moving picture streams that is
going to be played later than the other, and providing the
additional audio data including the same audio as that stored
in the predetermined terminal range.

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16. The data processing method of claim 13, wherein the
step of writing includes writing the provided additional audio
data just before where the mute interval is stored, thereby
associating the additional audio data with the data file.

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17. The data processing method of claim 13, wherein the
step of writing includes writing the arranged moving picture
streams as a single data file on the storage medium.

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18. The data processing method of claim 13, wherein the

step of writing includes writing the arranged moving picture streams as multiple data files on the storage medium.

19. The data processing method of claim 18, wherein the
5 step of writing includes writing the provided additional audio data just before where one of the two continuously played moving picture stream data files, which is going to be played later than the other, is stored, thereby associating the additional audio data with the data file.

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20. The data processing method of claim 13, wherein the step of writing includes writing information about the arrangement of the moving picture streams as at least one data file on the storage medium.